

Production of aqueous sols of hydrous oxides

Patent number:

GB609216

Publication date:

1948-09-28

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Applicant:

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Classification:

international:european:

B01J13/00B14

Application number:

GB19450024036 19450918

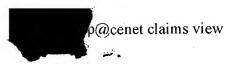
Priority number(s):

USX609216 19441026

Abstract of GB609216

An aqueous electrolyte-free sol of a hydrous oxide is produced by passing an aqueous solution of a metal salt through an anion-exchange material. Aluminium, iron, cobalt, nickel, chromium and manganese salts are specified. The exchange-materials such as synthetic resins of the metaphenylene-diamine-formaldehyde type, are preferably freshly made or suitably regenerated by means of alkali. Gelation may be prevented by adding small amounts of organic colloidal stabilizers or a salt from which the sol was derived. The Specification as open to inspection under Sect. 91 comprises also the abstraction of an anion from a solution of any material capable of forming a sol. This subject-matter does not appear in the Specification as accepted.

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Production of aqueous sols of hydrous oxides

Claims of GB609216

- 1. The process of producing an aqueous sol of hydrous oxide which comprises passing an aqueous solution of a salt of an element capable of forming such an oxide through a mass of anion-exchange materialwhereby the anion of said salt will be abstracted and a sol of the hydrous oxide results.
- 2. The process according to claim 1, for producing an aqueous sol of aluminum hydrate, wherein said salt is an aluminum salt.
- 3. The process according to claim 1, for producing an aqueous sol of iron hydroxide, wherein said salt is an iron salt.
- 4. The process according to claim 1, for producing an aqueous sot of cobalt hydroxide, wherein said salt is a cobalt salt.
- 5. The process according to any one of the preceding claims, wherein said aqueous salt solution is contacted with an alkaliregenerated mass of theanion-exchange material.
- 6. The process according to claim 1, for producing an aqueous sol of a hydrous oxide from a salt eapable of forming said hydrous oxide uponhydrolyzation thereof, wherein said salt is hydrolyzed by dissolving the same in a sufficient quantity of water, and abstract.

ing the anions from the resulting colloidal solution by means of ion-exchange.

7. The process according to claim 6, for producing an aqueous sol of ferric hydroxide.

wherein said salt is a ferric salt.

- 8. The process according to claim 1, for producing an aqueous sol of chromium hydroxide, wherein said salt is a chromium salt.
- 9. The process according to claim 7, wherein the salt is ferric chloride which forms an electrolyte-containing ferric hydroxide sol and the said anion-exchange material removes the simultaneously formed free hydrochloric acid therefrom.
- 1 0. The process according to claim1 wherein said salt solution is of a trivalent metal.
- 11. An aqueous sol of ahydrous oxide when prepared or produced by the process according to any of the preceding claims.

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